

Zen Pro[®]

TVR-5910



User manual

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1. Safety Instructions

☆ATTENTION

Always consult with your physician FIRST before starting any exercise program. Please do not use this product if you have any of the following conditions:

- Acute arthritis & rheumatoid arthritis
- Detached Retina
- Cardiovascular disease
- Epilepsy
- Acute migraine
- Pregnancy
- Other serious diseases
- Keep children under age 12 and pets away from the vibration platform at all times.

STOP use of this product immediately if you encounter any discomfort or if the machine is not functioning properly.

1. Instructions de sécurité

☆ATTENTION

Veillez ne pas utiliser cet appareil si vous souffrez de l'une des maladies ou si vous êtes dans l'un des états ci-dessous. Consultez toujours votre médecin en PREMIER avant de démarrer un programme d'exercice.

- Arthrite ou polyarthrite rhumatoïde grave
- Rétine Détachée
- Maladie cardiovasculaire
- Épilepsie
- Migraines graves
- Femme enceinte
- Autre maladie grave
- Gardez les enfants de moins de 12 ans et les animaux à distance de la plateforme vibrante.

Veillez CESSER immédiatement l'usage de cet appareil si vous constatez une gêne ou si l'appareil ne fonctionne pas correctement!

2. Technical Information

— Product View



2.1 Assembly Instructions

— Parts Package

Numbers	Name	Q'ty
1	Handle Bar	1 SET
2	Console	1 SET
3	Stem	1 SET
4	Platform	1 SET
5	U type Strap Hook	2 PCS
6	Stabilizer	1 SET
7	Fixed Tube	1 SET
8	Stem Rubber	1 SET
9	Console wire	1 SET
10	Control Board Wire	1 SET
11	Power cord	1 SET
12	Straps	2 PCS
13	Plugs	2PCS
A1	Round Head Hex (Black) (M8*20mm)	4 PCS
A2	Spring Washer (Black)	4 PCS
A3	Flat Washer (Black)	4 PCS
B1	Flat Round Head Hex (Silver) (M8*16mm)	12 PCS
B2	Spring Washer (Silver)	12 PCS
B3	Flat Washer (Silver)	12 PCS
C1	Round Head Screw (Black)	4 PCS
C2	Spring Washer (Black)	4 PCS
C3	Flat Washer (Black)	4 PCS

■ Screws Contrast List :

Handlebar & Stem Assembly Package Number A	 Top view	 Side view	A1  Round Head Hex (Black) M8x20mm (4pcs)	A2  Spring washer (Black) (4pcs)	A3  Flat washer (Black) ø8.4xø17x2t (4pcs)
1-Handlebar Assembly 2-Stem & Platform Assembly Package Number B	 Top view	 Side view	B1  Flat Round Head Hex (silver) M8x16mm (12pcs)	B2  Spring washer (silver) (12pcs)	B3  Flat washer (silver) ø8.2xø17x2t (12pcs)
Console Panel & Stem Assembly Package Number C	 Top view	 Side view	C1  Flat Round Head Screw (Black) M5x12mm (4pcs)	C2  Spring washer (Black) (4pcs)	C3  Flat washer (Black) ø5.5xø9.5x1t (4pcs)

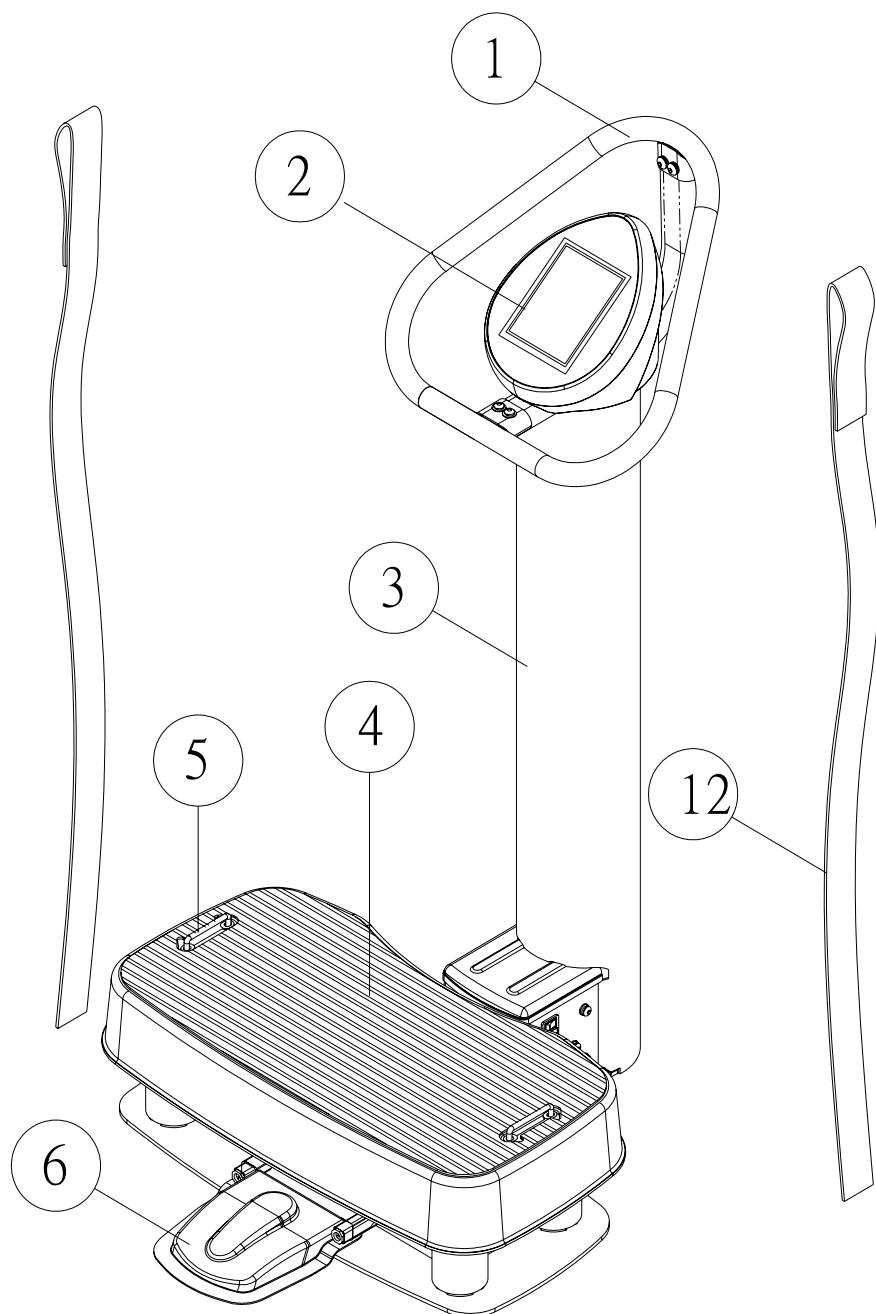
*The owner's manual is only for customers' reference.
The supplier can not guarantee for mistakes that occur due to
translation or changes in technical specifications of the product.*

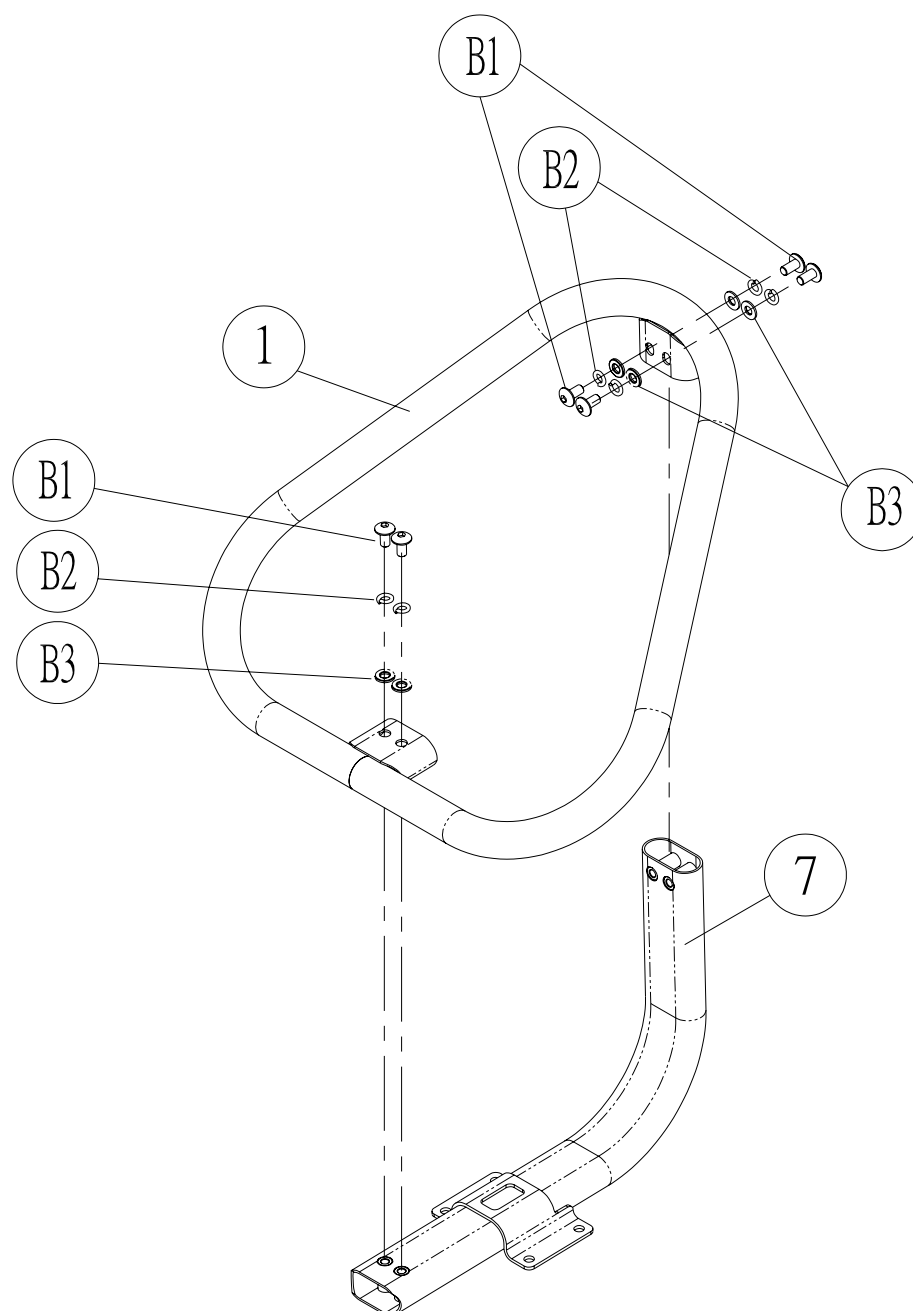
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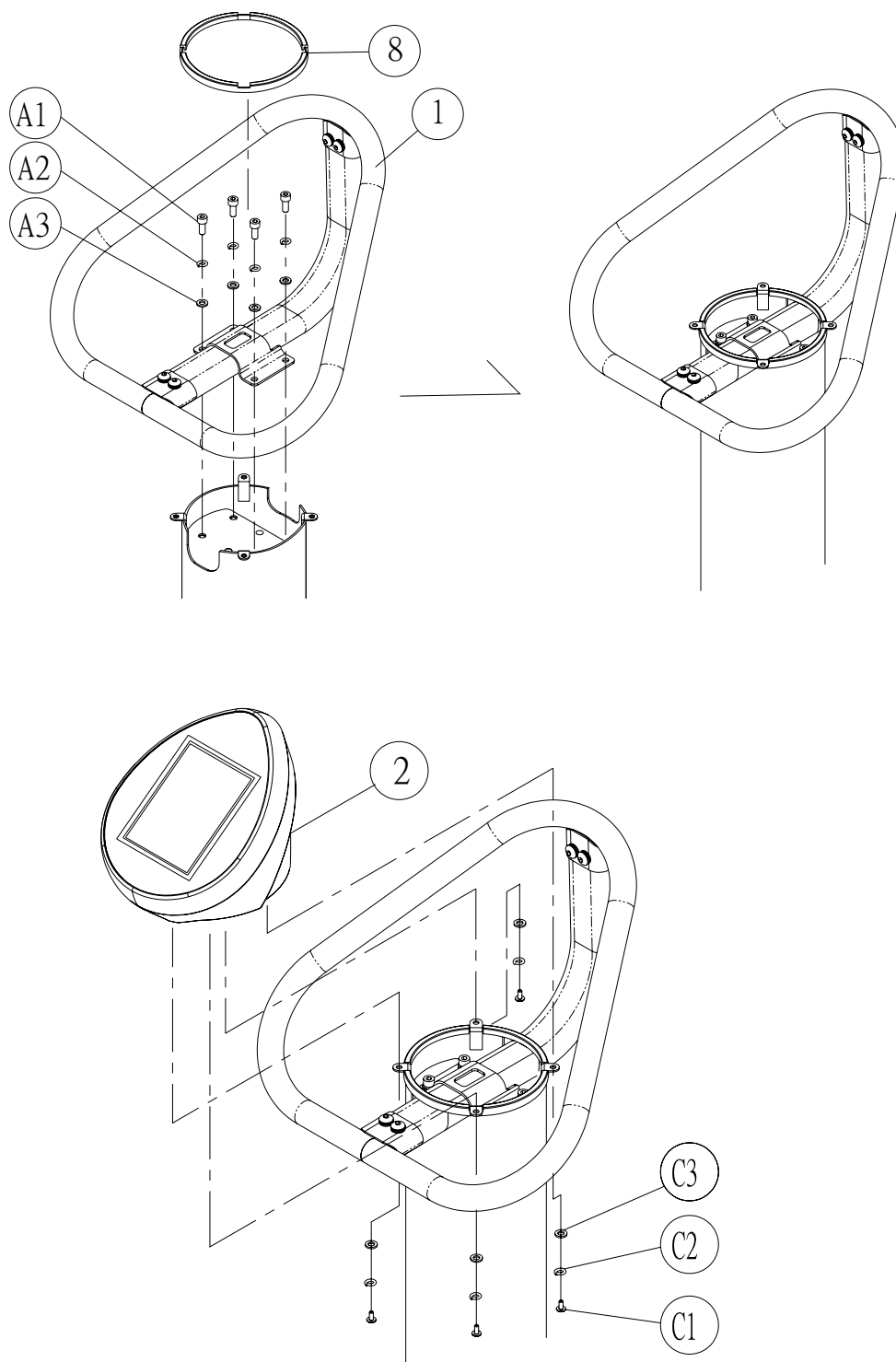
- ✧ Please follow these steps when assembling your PowerVibe ZenPro® TVR-5910.
- ✧ Make sure of all the screws are tightened during assembly.

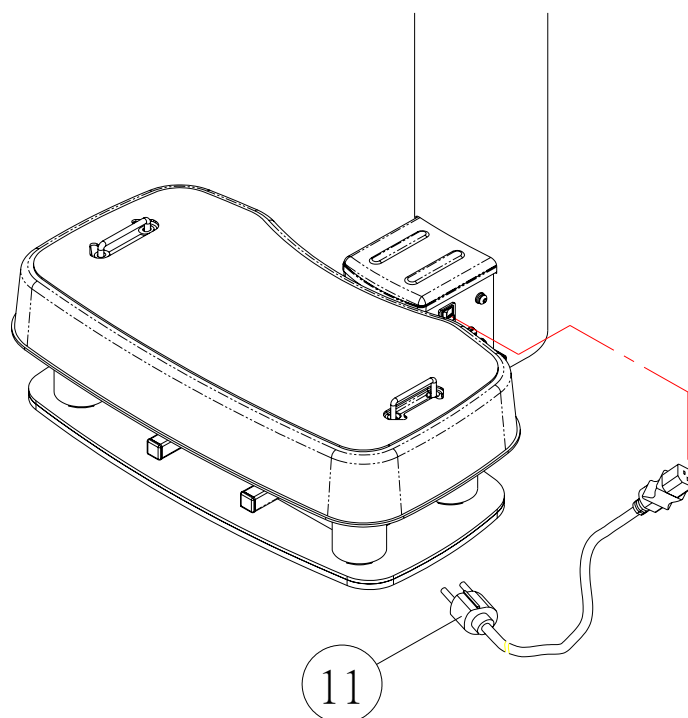
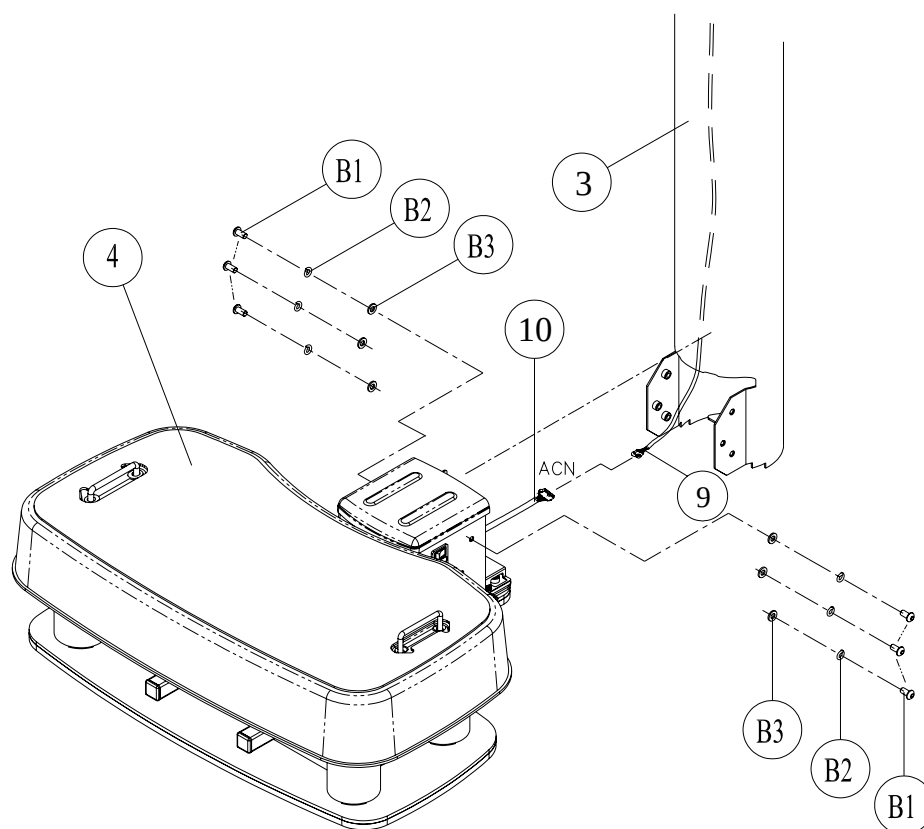
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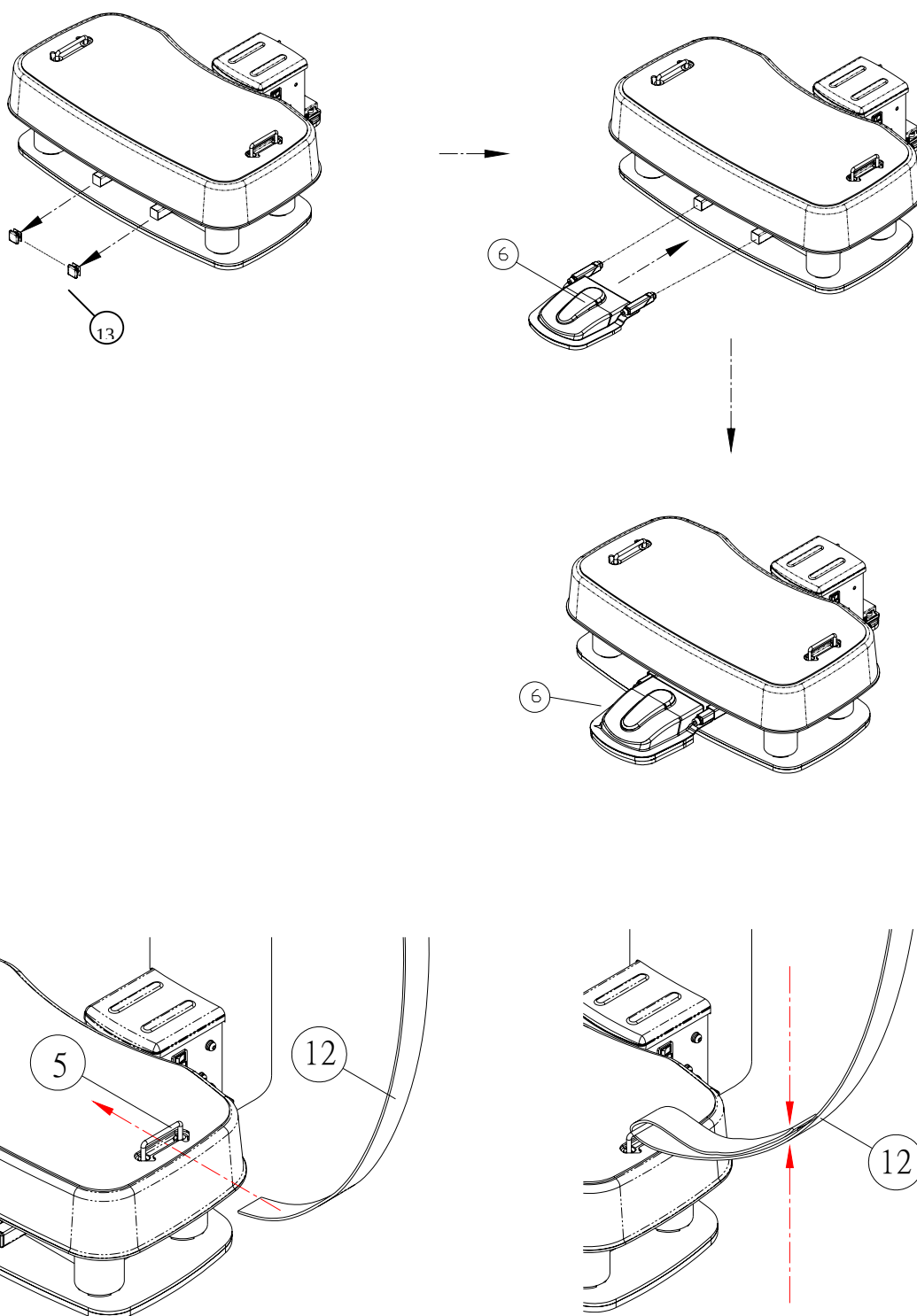
- ✧ Veuillez suivre les étapes indiquées pour l'assemblage du produit PowerVibe ZenPro® TVR-5910.
- ✧ Assurez-vous de bien serrer toutes les vis au cours de l'assemblage.











Product Assembly Complete!

2.2 Warranty

Valid Period: Warranty starts from the time of purchase. Keep your receipt. Proof of purchase is required at time of warranty validation.

Warranty Parts	Quantity (PC)	Time Period
Electronic Components	1	5 years
DC Motor	1	5 years
Main Frame	1	10 years
Labor	N/A	1 year

Warranty Limitations

The forgoing warranty shall not be applied to the following:

- If serial number is damaged, unreadable, modified or missing.
- Product has been used improperly, misuse, negligence, incorrectly maintained, modifications, dismantled, unauthorized service to or on the machine.
- Faulty wiring or electrical surges.
- If it is damaged by natural disasters, such as lightening, flood, typhoon, fire, earthquake or other natural disasters.
- The defective machines are not repaired by manufacturer's or dealer's authorized technician.
- The defects caused during transportation.
- To upgrade the hardware, software, and firmware of the machine.

3. What is Whole Body Vibration Training?

- **Origin—Vibration Training**

Humans experience the effects of externally applied forces constantly when exercising. When our feet contact ground during locomotion or as we strike objects with sport implements and daily activities, for example skiing, surfing, riding, dancing, public transportations, boat, aircraft and many more. These contacts create vibrations within the tissues of the limbs, which gradually decline as soft tissues dampen these oscillations, so that calls “vibration stimulus”. The body relies on a number of factors to achieve this reduction in vibrations, primarily soft tissue structures, but also bone, synovial fluids, specific joint positions, and muscle activity.

- **Principle—Vibration Theory**

Whole Body Vibration training (WBV) is, that subject stands on a platform or plate that produces sinusoidal oscillations either in a vertical up and down motion, or that rotates about a center fulcrum producing up and down vertical motion on alternating sides of the fulcrum, applied to either muscle tendons, or skeletal muscle indirectly to increase muscle activity and subsequently enhance muscle performance in both acute and chronic conditions for training purpose and sports performance enhancement. Through WBV to induce **Tonic Vibration Reflex (TVR)**, which is a sustained contraction of a muscle subjected to vibration caused by vibratory activation of muscle spindles-muscle receptors sensitive to stretch, has significant improvements on strength and explosive power. And today, vibration has been proven with significant positive effects on neuromuscular, bone density, metabolism and many more by sports scientists and academic.

- **Application of Vibration Training**

Since the early 1960s, vibration stimulation has been used in medical rehabilitation to stimulate and induce the activation of the muscle proprioceptors. The contractions caused by this stimulation help restore normal muscle function. In the field of rehabilitation vibration is being used on patients to help relieve muscle stress, repair and restore range of motion, osteoporosis prevention, improve blood circulation, metabolism and improve the autonomic nervous system.

Initially, the concept behind vibration training had its roots in East Germany with a technique called Rhythmic Neuromuscular Stimulation (RNS). This science was later embraced and developed by Russian scientists to combat the growing issue of osteoporosis.

Since osteoporosis and muscular atrophy were both noted in Russia's cosmonauts the Russian space agency used vibration training to combat the effects of the zero gravity environment of space. (Because there is no gravitational force in space, muscles and bones are not loaded leading to bone loss and muscle atrophy.) The results of vibration training on the cosmonauts were very significant including improved muscular strength, increased bone density and preventing osteoporosis.

In 1970s Russia used vibration training on elite athletes to improve muscle strength and endurance. The performance gains on these athletes had been significant through this new mode of training and hence the beginning of vibration training in sports. Since then there have been continued studies on the effects of vibration training. (Please refer to the documents and experiment data in the addendum).

• The Benefits of Vibration Training on the Human Body

➤ Sports Performance

- ✓ Enhances neuromuscular performance.
- ✓ Improves strength, explosive power, agility and flexibility.
- ✓ Help to prevent sports injuries.
- ✓ Increases the range of motion.
- ✓ Increases bone density.
- ✓ Quicker recovery.

➤ Health Performance

- ✓ Reduces the hormone reaction- promotes plasma consistency of testosterone, Human Growth Hormone, and decreases cortisol.
- ✓ Increases bone density and prevents osteoporosis.
- ✓ Induces bone remodeling.
- ✓ Increases blood circulation and enhances metabolism.
- ✓ Releases stressed muscles.
- ✓ Improves lower back pain.
- ✓ Reduces the tightness in joints, ligaments and tendons.
- ✓ Vibrating stimulus enhances bone recovery.

➤ Rehab/Sports medicine Performance

- ✓ Positive effect on preventing and improving osteoporosis.
- ✓ Enhances body control and balance.
- ✓ Improves joint disease- rheumatoid arthritis.
- ✓ Help to insulin of NIDDM patients on blood glucose control

4. About Zen Pro[®]

It has been documented for thousands of years in Chinese culture that stimulating specific parts of the body affects well being. Acupuncture, focused breathing, massage and meditation are used to alleviate stress responses that adversely impact all the bodies systems. Through Zen Pro[®], people can release stress, calming the spirit and balancing the body, heart and mind.

A long-term academic study found that meditation exercises combined with the benefits of vibration training and fitness could substantially improve the quality of life by relieving symptoms caused by high stress environments, overwork and lack of rest.

The Whole Body Vibration Zen Pro[®] series was developed based on Static State Meditation combined with the benefits of fitness and vibration technology. It can train full-body muscle groups and enhance the function of mental and physical efficiency at the same time. The Zen Pro[®] can also be used as an auxiliary piece of equipment for warm-up and cool down before and after exercise. With the proper training program, it can enhance the flexibility of the body, hand strength, control, flexibility and the sense of balance, releasing the deep healthy energy of the human body creating wellness and a strong, healthy mind.

PowerVibe's Zen Pro[®] TVR-5910 has 36 exercising programs, depending on your inquiry, you can choose. Every program has many kinds of postures, time, and frequency designed. It features a wide color screen and displays exercising information clearly, as if you have a personal instructor leading you. The PowerVibe Zen Pro[®] TVR-5910 meets the different needs from all different types of users.

4.1 Product Specification

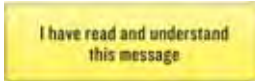
Product Name	Zen Pro[®] TVR-5910
Voltage	U.S : 100V~120V / EU : 220V~240V
Frequency	25Hz~50Hz
Amplitude	Maximum 1.5mm
Force	800N
Motor	DC Motor 1.0HP
Console Display	7" TFT
Exercise Programs	● MANUAL mode ● Auto mode: 5 unique pre-set programs ● PERSONAL COACH • Strength (Total Body, Arms, Back, Legs, Chest, Abs, Hips & Glutes) • Flexibility (Upper Body, Lower Body) • Balance, Stretches, Massage • Sports specific (Run, Golf, Ski, Swim, Cycle, Tennis, Gymnastics)
Workout Display	Exercise posture, Exercise Time, Frequency
Panel keys	Touch panel
Maximum Load	140Kgs (300lbs)
Dimension	(L)74.9cm x (W)98.2cm x (H)140.4cm (L)29.5in x (W)38.7in x (H)55.3in
Weight	N.W. : 58.4Kgs , G.W. : 65.95Kgs N.W. : 128.7 lbs, G.W. : 145.4 lbs
Certifications	CE, ETL, RoHS Compliant

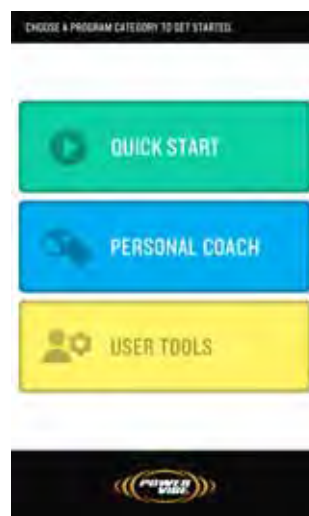
4.2 Operating Instructions

◆ 4.2.1 Console Operation

Turn on the power and enter the front page. Read the instruction on the screen.



- ◆ Press  key to enter the "MAIN MENU".



- ◆ Select the program category.
- Choose "QUICK START" for using the equipment without an on-screen coach, or "PERSONAL COACH" for using the equipment with an on-screen coach.
 - Note: When any program is completed and no buttons are pressed within 1 minute, the system will automatically return to the main menu. When the system remains idle for 10 minutes, the system display will enter standby mode. Simply touch the screen to wake the

system up from standby mode.

Keystroke function

- ◆ Press  home key to return to the “MAIN MENU”.
- ◆ Press  back key to return to the previous screen.

Operating procedure



This button includes MANUAL and AUTO mode.

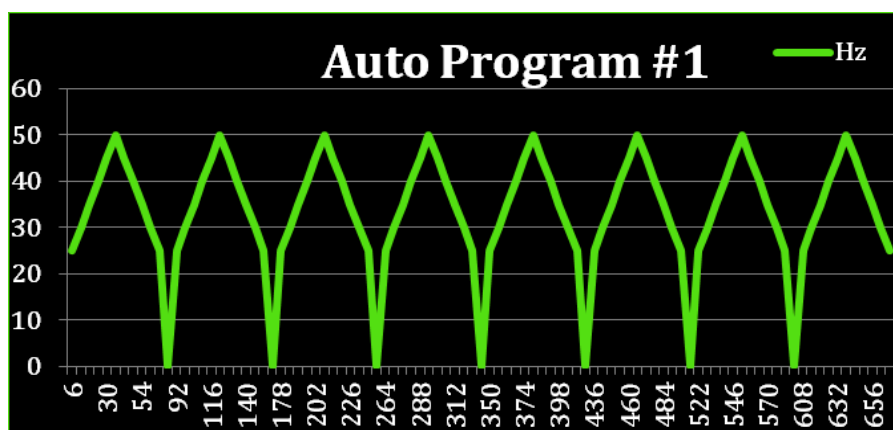
- ◆ Press “MANUAL” key to enter to the manual mode. When in “MANUAL” the user can adjust time and frequency while the vibration is running.



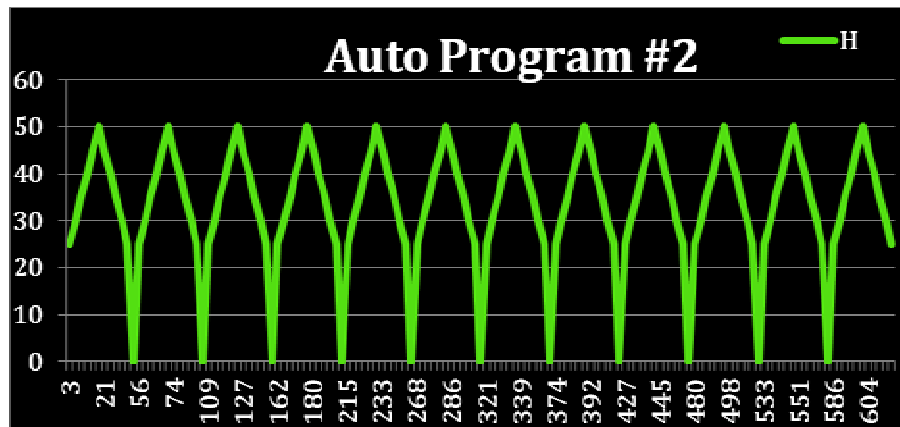
- Press   up/down key to adjust the time and frequency.
- Press “START/PAUSE” key to start or pause the vibration.
- Time and frequency are adjustable during workout.
- ◆ Press “AUTO1~5” to enter the auto mode. These 5 programs feature pre-determined unique patterns of vibration and rest intervals.



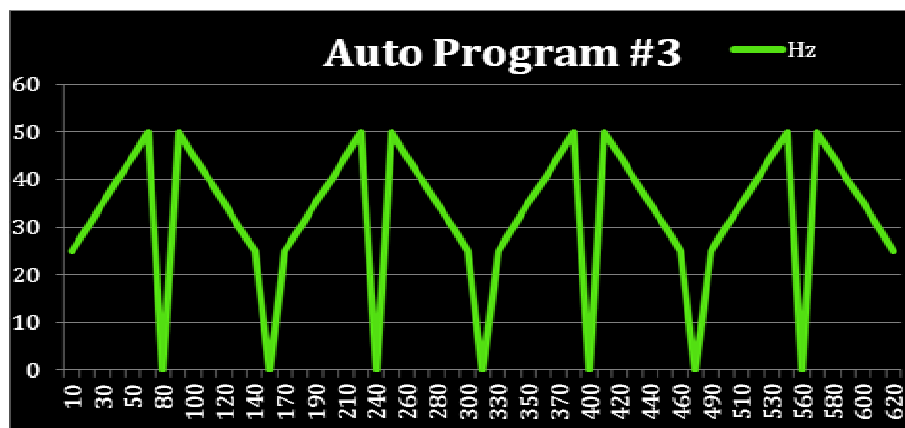
- Press “START/PAUSE” key to start or pause the vibration during any workout.
- Auto Program Specifications:



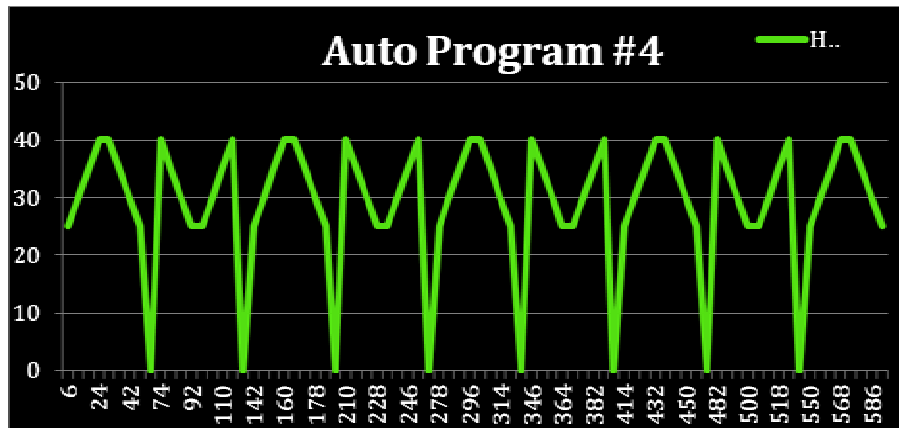
- Total Time: 11 minutes, 8 seconds
- Range: 25 – 50 Hz
- Cycle Pattern: 25-30-35-40-45-50-45-40-35-30-25 changing Hz every 6 seconds, with a 20 second rest after each cycle.
- Cycle Time with vibration on: 1 minute, 6 seconds



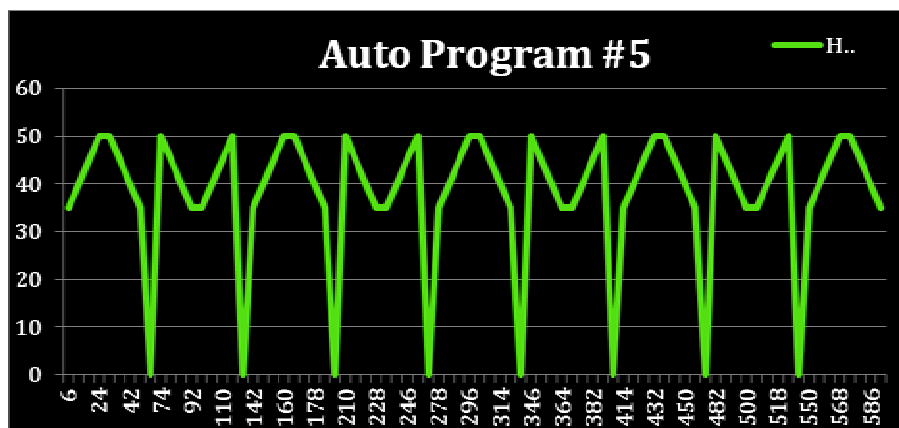
- Total Time: 10 minutes, 16 seconds
- Range: 25 – 50 Hz
- Cycle Pattern: 25-30-35-40-45-50-45-40-35-30-25 changing Hz every 3 seconds, with a 20 second rest after each cycle.
- Cycle Time with vibration on: 33 seconds



- Total Time: 10 minutes, 20 seconds
- Range: 25 – 50 Hz
- Cycle Pattern: 25-30-35-40-45-50-45-40-35-30-25 changing Hz every 10 seconds, with a 20 second rest after each cycle.
- Cycle Time with vibration on: 60 seconds



- Total Time: 9 minutes, 52 seconds
- Range: 25 – 40 Hz
- Cycle Pattern: 25-30-35-40-40-35-30-25 changing Hz every 6 seconds, with a 20 second rest after each cycle
- Cycle Time with vibration on: 48 seconds



- Total Time: 9 minutes, 52 seconds
- Range: 35 – 50 Hz
- Cycle Pattern: 35-40-45-50-50-45-40-35-30
- Cycle Time with vibration on: 48 seconds

Operation Info



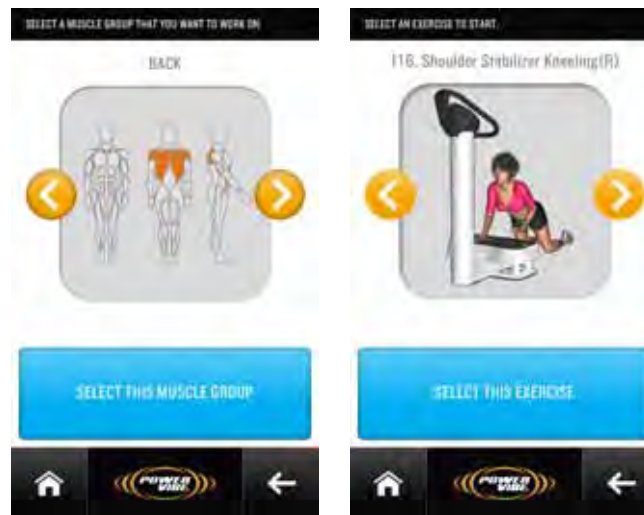
This button includes an exercise library, routines based on muscle group, upper and lower body flexibility routines, and 7 sport specific routines.



- ◆ Press "EXERCISE LIBRARY" to view exercises by type (organized by Muscle Group, Stretches, Balance, or Massage) and perform one at a time.



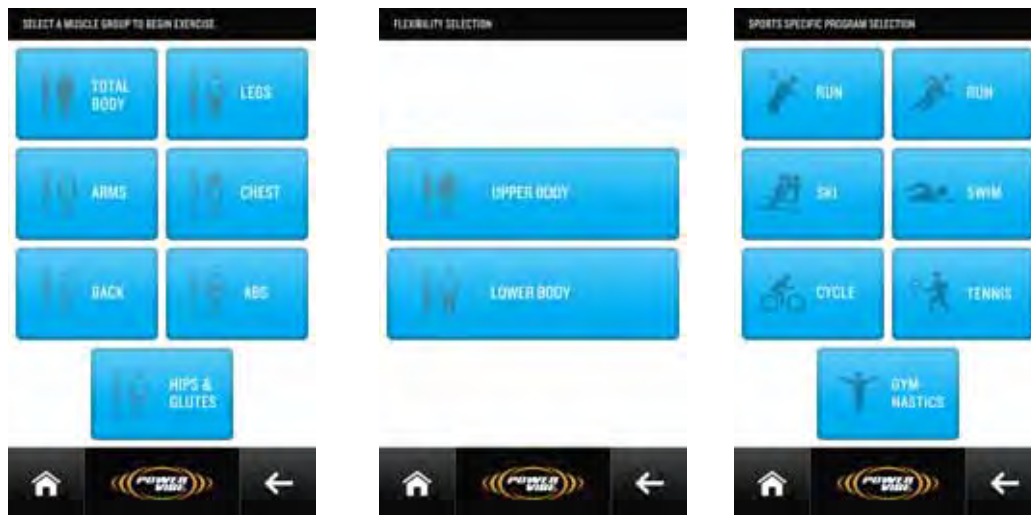
- Press "MUSCLE GROUP" key to select muscle group and view positions organized by muscle group.



- Press “STRETCH”, “BALANCE” or “MASSAGE” key to view exercises organized by the desired use/result.
- You will be taken to the exercise screen once you select an individual exercise.



- Adjust time and frequency and press “START/PAUSE” key to start or pause the vibration during workout.
-
- ◆ Press “BODY AREA/MUSCLE GROUP”, “FLEXIBILITY” or “SPORT SPECIFIC” key and enter the screen to select program.



- Enter exercising screen after the program and exercising level are selected.



- Press “START/PAUSE” key to start workout.
- Press “SKIP” key, the program will jump to the next posture.
- ※ The time and frequency are non-adjustable during these workouts



: This button includes “BMI CALCULATOR”, and “WHOLE BODY VIBRATION 101”.



- ◆ Press “BMI CALCULATOR” key to calculate BMI value.



- Set body weight and height then press “ENTER” key.



4.2.2 Exercise Library

Legs

A1	A2	A3	A4
			
Calf Raise	Basic Squat	Lunge	Advanced Calf Raise
A5	A6	A7	A8
			
Advanced Squat	Deep Squat	Single Leg Squat (L)	Single Leg Squat (R)
A9	A10	A11	
			
Wide Stance Squat	Step-up (L)	Step-up (L)	

Arms & Shoulder

B1	B2	B3	B4
			
Basic Curl (Front)	Basic Curl (Back)	Front Raise	Advanced Triceps

Operation Info

B5	B6	B7	B8
			
Advanced Push Up	Bent Over Pull	Triceps Pull (L)	Triceps Pull (R)
B9	B10	B11	B12
			
Lateral Lifts	Triceps Row	Lateral Side Raise	Deltoid Raise
B13	B14		
			
Lunge & Shoulder Press (L)	Lunge & Shoulder Press (R)		

Hips and Glutes

C1	C2	C3	C4
			
Leg Raise (L)	Leg Raise (R)	Pelvic Bridge	Lateral Stretch (L)
C5	C6	C7	C8
			
Lateral Stretch (R)	Leg Raise (L)	Leg Raise (R)	Side Leg Raise (L)

Operation Info

C9	C10	C11	C12
			
Side Leg Raise (R)	Single leg Stand (L)	Single leg Stand (R)	Lateral step lunge (L)
C13	C14	C15	C16
			
Lateral step lunge (R)	Transverse step lunge (L)	Transverse step lunge (R)	Step lunge (L)
C17	C18	C19	C20
			
Step lunge (R)	Pelvic Bridge Variation (L)	Pelvic Bridge Variation (R)	Split squat (L)
C21	C22	C23	
			
Split squat (R)	Quad/Hip Flexor (L)	Quad/Hip Flexor (R)	

Operation Info

Abs

D1	D2	D3	D4
			
Basic Abdominal	Abdominals Variation	Medium Abdominals	Lateral Side Stretch (L)
D5	D6	D7	D8
			
Lateral Side Stretch (R)	Abdominal crunch	Advanced Abdominals	Single leg glute bridge (L)
D9	D10	D11	D12
			
Single leg glute bridge (R)	Glute bridge	Side plank (L)	Side plank (R)
D13	D14	D15	D16
			
Oblique Crunches (L)	Oblique Crunches (R)	Standing abdominals	Elevated V-sit

Operation Info

Chest

E1	E2	E3	E4
			
Shoulder Press	Shoulder Press Variation	Push Up	Front Raise
E5	E6	E7	E8
			
Advanced Push Up	Double Cross Over	Incline fly	Push Up Variation (L)
E9	E10	E11	
			
Push Up Variation (R)	Single leg push up (L)	Single leg push up (R)	

Back

F1	F2	F3	F4
			
Leg Raise (L)	Leg Raise (R)	Lateral Extension (L)	Lateral Extension (R)

Operation Info

F5	F6	F7	F8
			
Medium Leg Raise (L)	Medium Leg Raise (R)	Advanced Leg Raise (L)	Advanced Leg Raise (R)
F9	F10	F11	F12
			
Advanced Back Stretch	Triceps Pull	Row	Standing row
F13	F14	F15	F16
			
Back Extension	Pelvis Stabilization	Reverse fly	Triceps Dip

Stretching

G1	G2	G3	G4
			
Hamstring stretch	Lower Back Stretch	Quadriceps Stretch	Back Stretch

Operation Info

G5	G6	G7	G8
			
Back Stretch	Neck Stretch (L)	Neck Stretch (R)	Arm Stretch
G9	G10	G11	G12
			
Deltoid Stretch (L)	Deltoid Stretch (R)	Calf stretch (L)	Calf stretch (R)
G13	G14	G15	G16
			
Triceps Stretch	Lateral Stretch	Adductor stretch (L)	Adductor stretch (R)
G17	G18	G19	G20
			
Shoulder stretch (L)	Shoulder stretch (R)	Single arm pectoral stretch (L)	Single arm pectoral stretch (R)
G21	G22	G23	G24
			
Chest stretch (L)	Chest stretch (L)	Hip Flexor (L)	Hip Flexor (R)

Massage

H1	H2	H3	H4
 Hamstrings massage	 Back massage	 Upper arm massage (L)	 Upper arm massage (R)
H5	H6	H7	H8
 Chest Massage (L)	 Chest Massage (R)	 Calves Massage	 Quadriceps Massage
H9	H10	H11	H12
 Abductor massage (L)	 Abductor massage (R)	 Adductor Massage (L)	 Adductor Massage (R)
H13	H14	H15	H16
 Lumber massage	 Shoulder & neck relaxor	 Lower back relaxor	 Upper body relaxor

Operation Info

H17			
 Back relaxor			

Balance

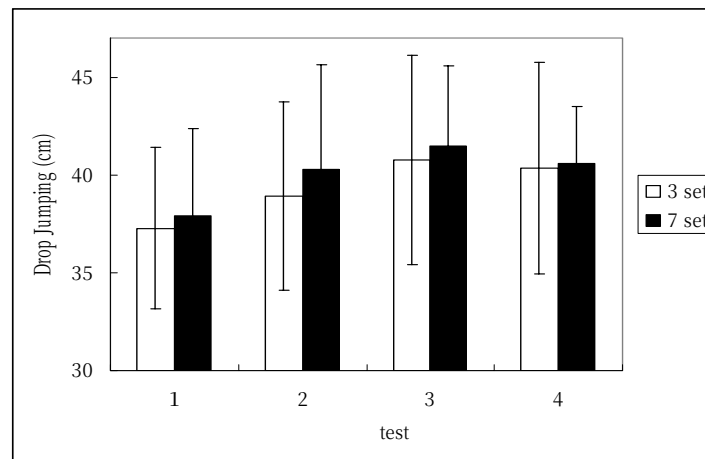
I1	I2	I3	I4
 Opposite Arm/Leg (L)	 Opposite Arm/Leg (R)	 Single leg balance (L)	 Single leg balance (R)
I5	I6	I7	I8
 Step up to balance (L)	 Step up to balance (R)	 Single Leg RDL (L)	 Single Leg RDL (R)
I9	I10	I11	I12
 Single leg balance with reach (L)	 Single leg balance with reach (R)	 Single leg balance with rotation (L)	 Single leg balance with rotation (R)

Operation Info

I13	I14	I15	I16
			
Shoulder stabilizer (L)	Shoulder stabilizer (R)	Shoulder stabilizer-kneeling (L)	Shoulder stabilizer-kneeling (R)

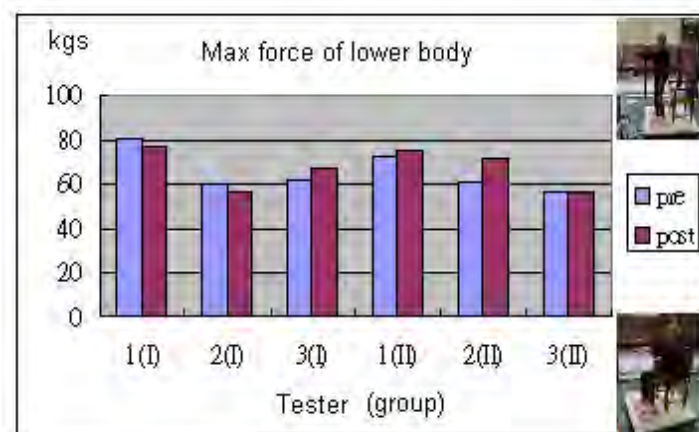
5. The efforts of Tonic Fitness with Academic Researches

- **Baseball Players' Vertical Jump Performance** - National College of Physical Education and Sports – Test Report (2006)



Conclusion : vibration training proved significant in dynamic contraction performance improvement, enhancing the strength and explosive power performance in a short period of time. Test indicates that vibration training does effectively improve human vertical jump ability.

- **Test Report of Vibration Training on Balance Ability and Lower Muscle in Elders**

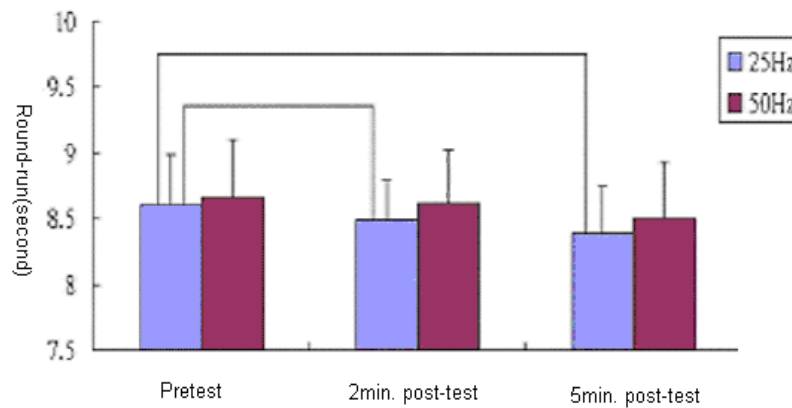


Conclusion : vibration training has shown significant benefits on improving lower muscle contraction performance and balance ability in elders.

— Test group average age of 80 - TPEC (2005-2006)

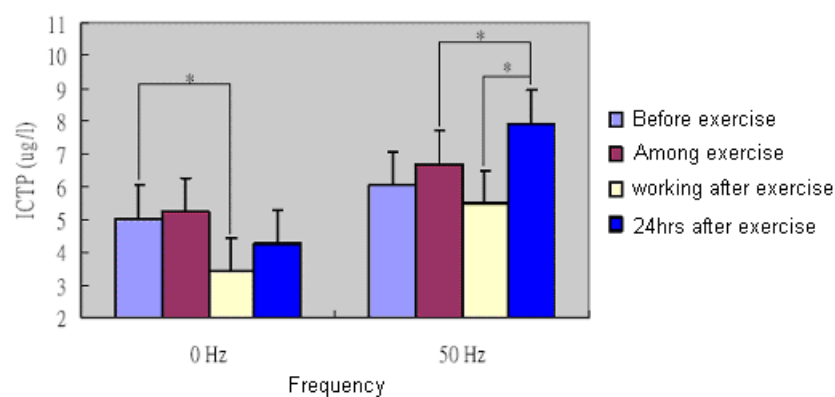
- **The Exercise Physiology Conference of Tainan University in May, 2007**

The effects of frequency on vibrating stimulation on explosive force, balance and agility.



Conclusion : performance and agility has significantly improved while sprinting after 2 minutes of vibrating stimulation at 25Hz.

- **The Effects of Whole Body Vibration on Bone Metabolism in Young Females**



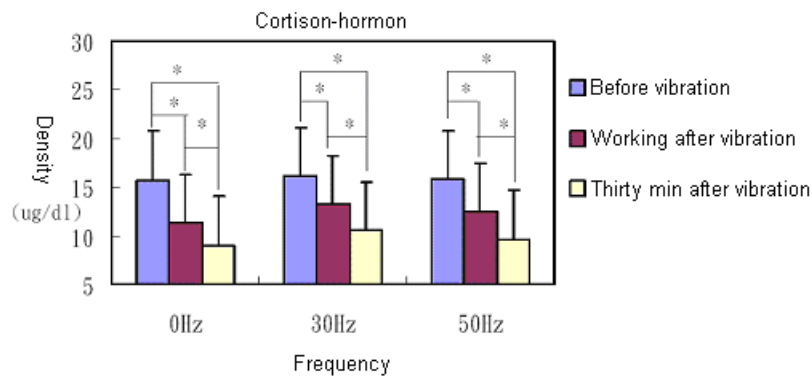
Conclusion : A single bout of whole-body vibration at the frequency of 50Hz temporarily increased both bone formation and bone resorption. Whole body vibration performed at 50Hz may have an anabolic effect on bone metabolism in young females.

The result of this study could also recommend the vibration training to be another exercise formula for elders and menopausal women in preventing

osteoporosis.

—Tainan University 2007 dissertation.

- **The Effects of Different Frequencies & Whole Body Vibration on Blood Serum Hormones**



Conclusion: the corticosteroid consistency (cortisone-hormone) has apparently decreased by different frequencies using whole body vibration training.

—Tainan University 2007 dissertation.

6. References

➤ U.S. & European References

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4. Jorn Rittweger, MD, karsten Just, MD, katja kautzsch, MsPsych, Peter Reeg, MD and Dieter Felsenberg (2002)- Treatment of Chronic Lower Back with Lumbar Extension and Whole-Body Vibration Exercise – A Randomized Controlled Trial.
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